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Understanding Grant Assurances

by Cassandra Isackson
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The value of an airport is appreciated by and impacted by its users, whether transient or based at the airport. Proper use and good planning can attract new users, new tenants, and inspire airport growth. In fact, your airport is, or can be, a significant economic engine for your entire community.

One way that you can help your airport to stay viable and continue to attract new users and new tenants is by understanding what "grant assurances" mean to your airport, how you can help your airport, and its plans for the future.

Aviators should understand that Airport Improvement Plan (AIP) funds can only be used to pay for specific projects that directly contribute to the actual capital improvement of an airport. In Minnesota, the Office of Aeronautics contributes funds toward the maintenance and operation of airports and also participates in capital projects.

Both state and federal funds come "with strings attached." An airport must accept the terms and conditions with the grant, and assurances that the grant obligations will be met. The goals of the conditions are simple: 1) To keep the airport open, 2) It must be well maintained, and 3) It must provide a safe environment for a variety of aviation.

As a pilot, tenant, user, or supporter of your local airport, you can be helpful in assisting your airport to meet these assurances. You can work with your airport manager, city leaders, and supporting organizations to volunteer to help maintain your airport. Then you can help make sure it is as safe, efficient, clean, and user-friendly as possible. Don't hesitate to let the airport manager know if you see or experience a situation that can have a negative impact on safety. Then, ask what you can do to help them correct the noted issue.

Please take time to review the basics of grant assurances and develop an understanding of the processes involved in funding your airport. Links to resource information are provided below for your convenience. You'll be better able to assist the city and/or your airport manager, in working to keep your airport open, viable and growing. And remember, from agricultural sprayers to business jets, aviation users fuel the economy!

Grant Assurance Resources:
https://www.faa.gov/airports/aip/grant_assurances/
https://www.faa.gov/airports/aip/grant_assurances/media/airport-sponsor-assurances-aip.pdf
https://www.faa.gov/airports/aip/
https://www.faa.gov/airports/aip/overview/ ❑

The Lowdown On Flying Down Low

General Aviation (GA) flying is so much fun that people will fly hundreds of miles just to have lunch and enjoy the freedom of flight. Breaking the bonds of gravity, to an extent, provides a sense of release and control that can only be found through flight. There, the endless blue sky above and the artists' palette of constantly changing shapes and colors below, cleanses the mind. It also intrigues the soul and enriches the spirit of the aviator with the feeling of freedom, almost to a point of giddiness.

With all that beauty to absorb, it is still sad that so many GA pilots and passengers will never see it again because of the failure to maintain control of their aircraft at low altitude. And while this also happens to airline and other professional pilots, it happens much more often with GA pilots. Why does that happen? Is it because of a lack of training, overestimating one's skills, or just complacency?

In a fact sheet published by the National Transportation Safety Board (NTSB) titled **Prevent Loss of Control (LOC) in flight in General Aviation,** it states, "While airline accidents have become relatively rare in the U.S., pilots and passengers involved in general aviation (GA) operations still die at alarming rates every year due to loss of aircraft control by the pilot."

It goes on to say, "GA pilots typically need to complete

a flight review, consisting of 1 hour of ground training and 1 hour of flight training, every 24 months. They almost exclusively maintain and improve skills on their own, and their conduct of safe flight depends more on individual abilities and judgment, potentially leaving them unprepared for situations that can lead to loss of control."

Many LOC accidents take place while aircraft are maneuvering at low altitude. While at this lower altitude (1,000 feet or lower), the margin for error is significantly reduced. At lower altitudes pilots face many obstacles and hazards like towers, wind generators, trees, powerlines and even flocks of birds. There may also be wind shear or unexpected turbulence caused by buildings and natural objects on the ground.

While statistics show that approach to landing, maneuvering, and climb are the deadliest phases of flight for loss of control-in flight (LOC-I) accidents, many of these accidents happen at low altitude. When maneuvering at low altitudes, pilots naturally have an increased workload. This comes about as a direct result of the hazards mentioned in the previous paragraph and with the aircraft possibly at a high angle of attack and at a slower speed.

With the increased workload, the chance for loss of airspeed awareness is also increased. That, quite simply, is caused by a failure of the pilot to fly the airplane first, instead of succumbing to distractions on the ground. It can also happen when the pilot is distracted by some perceived (or actual) minor malfunction with the aircraft.

Bear in mind that when maneuvering at low altitude, there is much less time and fewer opportunities to recover from aerodynamic stall and loss of control. A quote from the Australian Transport Safety Bureau succinctly states, "Flying at low altitudes is not only risky when things are going right; it becomes downright perilous when things are going wrong."

Minnesota Department of Transportation Chief Pilot Jeff Flynn, suggests, "Pilots should practice doing go-arounds from the flare, with your favorite CFI aboard and be done at a safe altitude to get a feel for the critical inputs and trim changes associated with such radical power changes." Flynn adds, "Practicing that maneuver will assist the pilot in building 'muscle-memory' while instilling the proper, quick, and well-practiced actions that help keep aviators safe."

So, the next time you get the urge to fly low and check out something on the ground, ask yourself these questions first: Is there an operational need for me to be flying at or below 1,000 feet AGL? Am I experienced/trained to operate an aircraft at low altitude for more than a transitional period of time?

You should have been trained and qualified by a CFI to fly at low altitude, if low flight is going to be necessary. If you do plan to fly a low altitude profile, you should always complete a thorough aerial inspection of the proposed low flight area from an appropriate and safe altitude before ever attempting low flight.

If you have questions, go to the **FAASTeam.GOV** website. It is a great resource for pilots to help improve their skills and knowledge. The site not only hosts the FAA WINGS pilot proficiency program, but also contains online pilot training materials. Pilots, flight instructors, and mechanics are encouraged to register online. Check it out today!

Here is one more piece of information for you if you think you are going to do low-altitude flying before being properly trained or retrained to do so. Mr. Les Dorr, spokesperson for the FAA in Washington, D.C., released a fact sheet titled **General Aviation Safety,** on April 4th, 2018. It is packed with important information and additional guidance. This fact sheet also notes that from 2001 through 2016, three (3) of the top 10 leading causes of fatal GA accidents include (1) Loss of Control in Flight, (2) Controlled Flight Into Terrain (CFIT), and (9) Low-Altitude Operations. All of these elements are causes of fatal accidents in low flight. You can read the Fact Sheet at: https://www.faa.gov/news/fact_sheets/news_story.cfm?newsId=21274

Proper Use of CHECKLISTS = Safety & Professionalism

The results of a study by K. M. Megha, and E.E. Bowen of Embry-Riddle Aeronautical University, Prescott, found that approximately "…70% of all approach and landing accidents were caused by omission of checklists, either partially or completely."* 70%! That begs the questions, what is causing that to happen? Are we in too much of a rush to get to that $100 hamburger? Are we too distracted by the "gee whiz" technology and capabilities of our glass cockpits? Are we just getting lazy, or worse yet, complacent?

Unless things have changed drastically over the years, flight instructors (CFIs) would pound into the student's brain the facts that preflight checks and the correct and consistent use of checklists was critically important to having a safe flight. The CFI would also remind the students many times that as the pilot-in-command, they are 100% totally responsible for assuring their aircraft is fit for flight, including having the correct paperwork that belongs in the aircraft. They would also drill into the student pilot's head that consistent use of checklists helps to make your passengers comfortable (once you were legally able to carry folks with you). It also demonstrated your dedication to safety. That is one more fact that helped your passengers enjoy their flight.

You want your passengers to walk away having had a fun and positive experience. You want to leave them with a great impression of aviation, right? So why would you rush through

a checklist, or worse yet, do your checks from memory knowing that items could be missed or accidentally skipped?

Obviously a safe and conscientious pilot with a "professional aviator" attitude would not do those things. No aviator wants to bend metal or worse yet, cause the demise of a passenger or himself. But failure to use your checklists properly and completely can quickly set up multiple weak links in a chain of causation that leads to disaster.

Start every flight by using your checklists as appropriate to the stage of preparation or flight. Doing this every time will become a smoother process as you build your flow (and "muscle memory"). If something legitimately distracts you and an item is missed, you will very likely feel the difference. Then you can return to the last known item checked and proceed forward from there, or restart that part of the checklist from the beginning.

When you consistently use your checklists correctly from walk-around before flight, to walk-around post flight every time you fly, it will become a part of you and your professional aviator habits. Then skipping them or rushing through them will feel unnatural and incorrect.

FAA AC120-71B Ch. 5 Para 5.1 states, "Checklists are of no value if the flight crew is not committed to their use. Without discipline and dedication to using checklists at the appropriate times, errors will inevitably occur." It further states, "The checklist is an aid to the memory and helps to ensure that critical items necessary for the safe operation of aircraft are not overlooked or forgotten."

Please always use your checklists. It is for your safety, and the safety of your passengers, but also for the safety of those below your flight path, and those with whom you share the sky.

* https://commons.erau.edu/cgi/viewcontent.cgi?article=1118&context=aircon
Electronic Checklist Implementation: Transition Training and General Aviation (GA) Usage
Megha, K. M. & Bowen, E. E., Embry-Riddle Aeronautical University, Prescott. ❑

MNDOT Office of Aeronautics Promotes Flying In Minnesota At EAA AirVenture Oshkosh 2018

A future pilot sits in a mockup of a floatplane at the Minnesota Department of Transportation Office of Aeronautics exhibit at EAA AirVenture Oshkosh. *Peggy Weiman Photo*

OSHKOSH, WIS. – The Minnesota Department of Transportation Office of Aeronautics staff met with pilots, aircraft owners, airport managers, aviation business owners and other aviation officials at EAA AirVenture Oshkosh 2018 to promote flying and airports in Minnesota.

The annual fly-in was held July 23-29, 2018 at Wittman Regional Airport in Oshkosh, Wisconsin, and attracted 601,000 spectators.

Minnesota has more than 16,000 pilots, approximately 6,000 registered aircraft and 135 publicly-owned and operated airports.

For additional information visit www.dot.state.mn.us/aero.

(L/R) Kevin Carlson, Kathy Vesely and Cassandra Isackson greet pilots. *Dave Weiman Photo*